

I claim:

1 1. A method of protecting a multimedia object having a first media component and a
2 second media component, comprising the steps of:
3 providing a watermark;
4 splitting the watermark into a first part and a second part;
5 inserting the first part of the watermark into the first media component;
6 inserting the second part of the watermark into the second media component; and
7 outputting a watermarked multimedia object.

1 2. The method of claim 1, comprising the further steps of:
2 receiving the watermarked multimedia object;
3 extracting from the first media component of the watermarked multimedia object
4 a first extracted watermark part;
5 extracting from the second media component of the watermarked multimedia
6 object a second extracted watermark part;
7 combining the first extracted watermark part with the second extracted watermark
8 part; and
9 comparing the combined first and second extracted watermark parts with the
10 provided watermark to verify an ownership.

1 3. The method of claim 1, wherein the watermark is a signature watermark and is
2 provided by:

3 obtaining a signature of the multimedia object; and
4 generating the signature watermark as a function of the signature.

1 4. The method of claim 3, comprising the further steps of:

2 receiving the watermarked multimedia object;

3 extracting from the first media component of the watermarked multimedia object
4 a first extracted watermark part;

5 extracting from the second media component of the watermarked multimedia
6 object a second extracted watermark part;

7 generating a combination watermark by combining the first extracted watermark
8 part with the second extracted watermark part;

9 generating a signature watermark that is a function of a signature extracted from
10 the watermarked multimedia object; and

11 comparing the combination watermark with the signature watermark to
12 authenticate the multimedia object.

1 5. A system for protecting a multimedia object having a first media component and a
2 second media component, comprising:

3 a mechanism for splitting a watermark into a first and a second part; and

4 a mechanism for inserting the first part into the first media component, and for
5 inserting the second part into the second media component.

1 6. The system of claim 5, further comprising a mechanism for outputting a watermarked
2 multimedia object, wherein the watermarked multimedia object includes the first media
3 component having the first part of the watermark, and the second media component
4 having the second part of the watermark.

1 7. The system of claim 5, wherein the first media component is an audio component, and
2 the second media object is a video component.

1 8. The system of claim 6, further comprising:

2 a mechanism for obtaining a signature from the multimedia object; and

3 a mechanism for generating the watermark as a function of the signature.

1 9. The system of claim 6, further comprising:

2 a mechanism for extracting a first extracted watermark part from the first media
3 component in the watermarked multimedia object, and for extracting a second extracted
4 watermark part from the second media component in the watermarked multimedia object;

5 a mechanism for combining the first extracted watermark part with the second

6 extracted watermark part; and

7 a mechanism for comparing the combined first and second extracted watermark

8 parts with the watermark.

1 10. The system of claim 8, further comprising:

2 a mechanism for extracting a first extracted watermark part from the first media

3 component in the watermarked multimedia object, and for extracting a second extracted

4 watermark part from the second media component in the watermarked multimedia object;

5 a mechanism for generating an extracted watermark by combining the first

6 extracted watermark part with the second extracted watermark part;

7 a mechanism for generating a signature watermark that is a function of a signature

8 of the watermarked multimedia object; and

9 a mechanism for comparing the extracted watermark with the signature

10 watermark.

1 11. A system for authenticating a watermarked multimedia object having a first media
2 component and a second media component, comprising:

3 a mechanism for extracting a first watermark part from the first media
4 component, and for extracting a second watermark part from the second media
5 component;

6 a mechanism for combining the first extracted watermark part with the second
7 extracted watermark part; and

8 a mechanism for comparing the combined first and second watermark parts with a
9 provided watermark.

1 12. The system of claim 11, wherein the provided watermark is generated as a function of
2 a signature of the watermarked multimedia object.

1 13. The system of claim 11, wherein the first media component is a video component
2 and the second media component is an audio component.

1 14. The system of claim 13, wherein the watermarked multimedia object has a third
2 media object, and wherein the third media object is a closed caption component.